

REMARKS

Status of claims

Applicants thank the Examiner for the consideration given to the present application. Claims 1, 3-22, and 29-33 are pending in the present application. Claims 1, 3, 4, 8, 9, 17, 18, 19, 21, and 22 have been amended herein, for clarification. Support for these amendments is found in the specification, for example, on page 25, lines 26-35 (¶ [0146] of Pub. App.). No new matter has been entered

Rejection of Claims under 35 U.S.C. §112

Claims 4-6, 8-11 and 17-18 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for lack of antecedent basis. Claims 4, 8, 9, 17, and 18 have been amended to remove its dependency to claim 1, thus claims 4, 8, 9, 17, and 18 and all claims dependent thereon are not indefinite. As a result, the rejection under §112 is traversed and reconsideration is respectfully requested.

Rejection of Claims under 35 U.S.C. §103

Claims 1, 3-22 and 29-33 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Buchan EP No. 0 066 421 in view of Williamson Jr., U.S. 3,325,014. This rejection is respectfully traversed.

According to MPEP 2143, there are three requirements for establishing a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *See generally* MPEP 2143.

Independent claims 1, 3, 21, and 22 all recite a composition for purifying and clarifying contaminated drinking water comprising, *inter alia*, a microbiocidal chlorine-based disinfectant comprising a hydrophobic coating, wherein the hydrophobic coating is operable to control the

release of the disinfectant. None of the cited references, singularly or in combination, teach all elements of these independent claims.

Buchan's purification composition fails to teach a disinfectant comprising a hydrophobic coating, wherein the hydrophobic coating is operable to control the release of the disinfectant. Buchan is cited for teaching a calcium hypochlorite but fails to teach a hydrophobic coating disposed on the calcium hypochlorite, wherein the coating is configured to control the release of the disinfectant.

Moreover, Buchan provides no motivation or suggestion to modify the Buchan disinfectant to include a coating over the calcium hypochlorite. As stated in the present specification, utilizing a hydrophobic coating transforms the disinfectant into a controlled release formulation, which benefits the disinfectant. *See* page 10, lines 26-32 (¶ [0041 of Pub. App.). For example, by utilizing a controlled release form, "the disinfectant is released into the drinking water and allowed to react with soluble organic impurities therein only after substantial completion of the coagulation and flocculation stage, this being valuable from the viewpoint of controlling and minimizing the level of trihalomethanes (THM) generated during the purification process." *Id.* In contrast, Buchan's composition does not teach a controlled release hydrophobic coating. Without a hydrophobic coating, Buchan's disinfectant would be released *immediately* upon delivery to a water solution, and would be incapable of being released after coagulation or flocculation. Furthermore, Buchan also fails to identify a problem to be solved or the desirability of using the hydrophobic coating e.g. minimizing the level of THM. As a result, Buchan fails to teach or suggest a composition comprising a microbiocidal chlorine-based disinfectant having a hydrophobic coating, wherein the hydrophobic coating is operable to control the release of the disinfectant.

Williamson fails to cure the above noted deficiencies of Buchan. Like Buchan, Williamson also fails to teach a disinfectant comprising a hydrophobic coating and the desirability of the hydrophobic coating. Thus, Applicants respectfully submit that a prima facie case of obviousness has not been established and request the rejection under 103 be withdrawn.

Applicants respectfully submit that the present application is in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

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Respectfully submitted,
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